

Notice of Allowability

Application No.

10/698,666

Examiner

Siu M. Lee

Applicant(s)

HUSTED, PAUL J.

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on.
2. ☒ The allowed claim(s) is/are 1,3,6-14,16,19-23 and 26-29.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jeanette S. Harms on 2/12/2008.

(1) Regarding claim 1:

Line 12, change "wherein if the received signal" to **---wherein if the strength of the received signal---**.

(2) Regarding claim 3:

Replace claim 3 with the following:

---The method of claim 1, wherein if the strength of the received signal is greater than the predetermined threshold value, thereby characterizing the received signal as strong or intermediate, then the identification value includes an absolute modulation-specific correlation value.---

(3) Regarding claim 6:

Line 2, change "the received signal is greater" to **---the strength of the received signal is greater---**.

(4) Regarding claim 11:

Line 12, change "wherein if the received signal" to **---wherein if the strength of the received signal---**.

(5) Regarding claim 12:

Lines 1, change "wherein if the" to **---wherein if the strength of the---**.

(6) Regarding claim 14:

Line 15, change "wherein if the received signal" to **---wherein if the strength of the received signal---**.

(7) Regarding claim 19:

Line 2, change "if the received signal" to **---if the strength of the received signal---**.

(8) Regarding claims 30, 32, 35-39:

Cancel claims 30, 32, 35-39.

Allowable Subject Matter

2. Claims 1, 3, 6-14, 16, 19-23, 26-29 are allowed.
3. The following is an examiner's statement of reasons for allowance:

The present invention describes a method of determining a modulation type of a received signal, the method comprising beginning demodulation of the received signal using components associated with each potential type of modulation; providing an identification value to a voting block for each potential type of modulation based on the received signal; and using a technique in the voting block to determine the modulation type, wherein the technique is based at least on the identification values and including

determining a strength of the received signal, wherein if the strength of the received signal is equal to or less than a predetermined threshold value, thereby characterizing the received signal as weak, then the identification value includes a normalized correlation value based on characteristics of the modulation type. The closest prior art, Piirainen (WO 99/39484) discloses a similar system but fail to disclose wherein if the strength of the received signal is equal to or less than a predetermined threshold value, thereby characterizing the received signal as weak, then the identification value includes a normalized correlation value based on characteristics of the modulation type. This distinct feature has been added to independent claims 1 and 14, thus rendering claims 1, 3, 6-10, 14, 16, 19-20 allowable.

For independent claim 11, the closest prior art, Piirainen (WO 99/39484) discloses a similar system but fail to disclose wherein if the strength of the received signal is equal to or less than a predetermined threshold value, thereby characterizing the received signal as a weak signal, then a determination can be made whether a raw RSSI is greater than a threshold RSSI. This distinct feature has been added to independent claims 11, thus rendering claims 11-13 allowable.

For independent claim 21, the closest prior art, Piirainen (WO 99/39484) discloses a similar system but fail to disclose wherein the means for determining the strength controls whether the voting block uses a correlation value or an RSSI based in a type of modulation for the identification value. This distinct feature has been added to independent claims 21, thus rendering claims 21-23, 26-29 allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Siu M. Lee whose telephone number is (571) 270-1083. The examiner can normally be reached on Mon-Fri, 7:30-4:00 with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Siu M Lee
Examiner
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2/13/2008

A handwritten signature in cursive script, appearing to read "Chieh M. Fan", followed by a checkmark-like flourish.

CHIEH M. FAN
SUPERVISORY PATENT EXAMINER